

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	US-6293264-\$.DID. OR US-6227179-\$.DID.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/07/03 07:44
S2	1	("4147141").PN.	US-PGPUB; USPAT	OR	OFF	2008/07/03 07:45
S3	1	("6293264").PN.	US-PGPUB; USPAT	OR	OFF	2008/07/03 07:46
S4	1	("5617726").PN.	US-PGPUB; USPAT	OR	OFF	2008/07/03 07:46
S5	1	("4207848").PN.	US-PGPUB; USPAT	OR	OFF	2008/07/03 07:48
S6	1	("2977940").PN.	US-PGPUB; USPAT	OR	OFF	2008/07/03 07:49
S7	1	("6167703").PN.	US-PGPUB; USPAT	OR	OFF	2008/07/03 07:51
S8	1	("4348991").PN.	US-PGPUB; USPAT	OR	OFF	2008/07/03 07:53
S9	2	((("3977195") or ("4207848"))).PN.	US-PGPUB; USPAT	OR	OFF	2008/07/03 07:53
S10	5	((("6158979") or ("6291912") or ("6470838") or ("7302919") or ("7255310"))).PN.	US-PGPUB; USPAT	OR	OFF	2008/07/07 09:09
S11	10	((MATHIEU) near2 (CHANFREAU)).INV.	US-PGPUB; USPAT	ADJ	ON	2008/07/07 09:12

S12	96	US-6003315-\$.DID. OR US-6988365-\$.DID. OR US-5269146-\$.DID. OR US-6038860-\$.DID. OR US-7011080-\$.DID. OR US-5518828-\$.DID. OR US-5440880-\$.DID. OR US-7017561-\$.DID. OR US-5802846-\$.DID. OR US-7299793-\$.DID. OR US-6164071-\$.DID. OR US-20010045090-\$.DID. OR US-6205785-\$.DID. OR US-20020100279-\$.DID. OR US-6216458-\$.DID. OR US-20020124553-\$.DID. OR US-6216460-\$.DID. OR US-20020166547-\$.DID. OR US-6216461-\$.DID. OR US-20020178717-\$.DID. OR US-20030093994-\$.DID. OR US-20030114978-\$.DID. OR US-20040045281-\$.DID. OR US-6003316-\$.DID. OR US-20040050047-\$.DID. OR US-6062026-\$.DID. OR US-20040050373-\$.DID. OR US-6220233-\$.DID. OR US-20040154284-\$.DID. OR US-20040250802-\$.DID. OR US-6237336-\$.DID. OR US-20050000499-\$.DID. OR US-5771868-\$.DID. OR US-20050056263-\$.DID. OR US-5890475-\$.DID. OR US-20050103014-\$.DID. OR US-6055808-\$.DID. OR US-20060101819-\$.DID. OR US-6173567-\$.DID. OR US-20060130470-\$.DID. OR US-5206094-\$.DID. OR US-20070068500-\$.DID. OR US-5732688-\$.DID. OR US-20070089415-\$.DID. OR US-5791146-\$.DID. OR US-20070175215-\$.DID. OR US-5794445-\$.DID. OR US-20070204614-\$.DID. OR US-5927075-\$.DID. OR US-20070214771-\$.DID. OR US-5937650-\$.DID. OR US-20070271910-\$.DID. OR US-5974802-\$.DID. OR US-4258687-\$.DID. OR US-6041756-\$.DID. OR US-4267812-\$.DID. OR US-6062304-\$.DID. OR US-6752133-\$.DID. OR US-6062027-\$.DID. OR US-7073491-\$.DID. OR US-6085732-\$.DID. OR US-7363919-\$.DID. OR US-6123144-\$.DID. OR US-20020124565-\$.DID. OR US-6128784-\$.DID. OR US-20050235972-\$.DID. OR US-6138649-\$.DID. OR US-20060200297-\$.DID. OR US-6301888-\$.DID. OR US-20070084448-\$.DID. OR US-6367256-\$.DID. OR US-20070234720-\$.DID. OR US-6467270-\$.DID. OR US-5725048-\$.DID. OR US-6470682-\$.DID. OR US-5617726-\$.DID. OR US-6484500-\$.DID. OR US-5360373-\$.DID. OR US-6484703-\$.DID. OR US-4290801-\$.DID. OR US-6598388-\$.DID. OR US-4419864-\$.DID. OR US-6598396-\$.DID. OR US-4426842-\$.DID. OR US-6681171-\$.DID. OR US-4559788-\$.DID. OR US-6701710-\$.DID. OR US-5015174-\$.DID. OR US-6827067-\$.DID. OR US-5511953-\$.DID. OR US-6920868-\$.DID. OR US-4250711-\$.DID. OR US-6964158-\$.DID. OR US-4413478-\$.DID. OR US-6978772-\$.DID. OR US-4546279-\$.DID.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/07/07 10:44
S14	2166	60/278,280,298,605.1,605.2.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/07/07 13:37
S15	2430	165/103,172,175,176.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/07/07 13:38
S17	3247	123/540,541,542,563,568.12,568.11,568.14,568.15,568.19,568.21,568.22,435,676.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/07/07 13:40
S18	7472	S17 or S14 or S15	US-PGPUB; USPAT	ADJ	ON	2008/07/07 13:40
S19	9	("2498152"   "4028892"   "6006540"   "6079394").PN. OR ("6227179").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/07/07 13:41
S20	2050	((heat near5 exchange) same (intake near10 (air or cooler or egr or "exhaust gas" or inlet or outlet or manifold)))	US-PGPUB; USPAT	ADJ	ON	2008/07/07 13:47
S21	166	S18 and S20	US-PGPUB; USPAT	ADJ	ON	2008/07/07 13:47
S22	1244	((egr or (exhaust gas)) cooler same (bypass or inlet or outlet or manifold or (within or inside or incorporated) or (distribution means or valves)))	US-PGPUB; USPAT	ADJ	ON	2008/07/07 14:00

S23	648	S22 and S18	US-PGPUB; USPAT	ADJ	ON	2008/07/07 14:00
S24	25	S23 and (bypass\$3 with (seperate or different or another))	US-PGPUB; USPAT	ADJ	ON	2008/07/07 14:02
S25	10	heat exchange (unit or apparatus or module)	US-PGPUB; USPAT	ADJ	ON	2008/07/07 15:45
S26	8	("2003/0150434").URPN.	USPAT	ADJ	ON	2008/07/07 16:11
S27	15	("1539267"   "20030015184"   "20030111211"   "20030150434"   "20040107949"   "3751917"   "3814589"   "5101892"   "5148858"   "6141961"   "6302191"   "6729122"   "6807955").PN. OR ("7264040").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/07/07 16:18
S28	2	("2003/0015184").URPN.	USPAT	ADJ	ON	2008/07/07 16:20
S29	9	("3823556"   "5396764"   "5946906"   "6141961"   "6477830"   "6588203").PN. OR ("6729122").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/07/07 16:21
S32	1023	((manifold or port or passage or path or line) near5 (inlet or outlet)) same (egr or "egr cooler" or "exhaust gas recirculat\$3")	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:07
S33	2167	60/278,280,298,605.1,605.2.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:08
S34	2430	165/103,172,175,176.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:08
S35	3249	123/540,541,542,563,568.12,568.11,568.14,568.15,568.19,568.21,568.22,435,676.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:08
S36	7475	S35 or S33 or S34	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:08
S37	475	S32 and S36	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:08
S38	1	S37 and ((distribution or collection or bypass) near5 means)	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:09
S39	475	S37 and (bypass or gas or gases or cooled or heated or merg\$3)	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:10

S40	82	S39 and ((controller with means) or (valve with (proportional or rotary)))	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:12
S41	96	US-6003315-\$.DID. OR US-6988365-\$.DID. OR US-5269146-\$.DID. OR US-6038860-\$.DID. OR US-7011080-\$.DID. OR US-5518828-\$.DID. OR US-5440880-\$.DID. OR US-7017561-\$.DID. OR US-5802846-\$.DID. OR US-7299793-\$.DID. OR US-6164071-\$.DID. OR US-20010045090-\$.DID. OR US-6205785-\$.DID. OR US-20020100279-\$.DID. OR US-6216458-\$.DID. OR US-20020124553-\$.DID. OR US-6216460-\$.DID. OR US-20020166547-\$.DID. OR US-6216461-\$.DID. OR US-20020178717-\$.DID. OR US-20030093994-\$.DID. OR US-20030114978-\$.DID. OR US-20040045281-\$.DID. OR US-6003316-\$.DID. OR US-20040050047-\$.DID. OR US-6062026-\$.DID. OR US-20040050373-\$.DID. OR US-6220233-\$.DID. OR US-20040154284-\$.DID. OR US-20040250802-\$.DID. OR US-6237336-\$.DID. OR US-20050000499-\$.DID. OR US-5771868-\$.DID. OR US-20050056263-\$.DID. OR US-5890475-\$.DID. OR US-20050103014-\$.DID. OR US-6055808-\$.DID. OR US-20060101819-\$.DID. OR US-6173567-\$.DID. OR US-20060130470-\$.DID. OR US-5206094-\$.DID. OR US-20070068500-\$.DID. OR US-5732688-\$.DID. OR US-20070089415-\$.DID. OR US-5791146-\$.DID. OR US-20070175215-\$.DID. OR US-5794445-\$.DID. OR US-20070204614-\$.DID. OR US-5927075-\$.DID. OR US-20070214771-\$.DID. OR US-5937650-\$.DID. OR US-20070271910-\$.DID. OR US-5974802-\$.DID. OR US-4258687-\$.DID. OR US-6041756-\$.DID. OR US-4267812-\$.DID. OR US-6062304-\$.DID. OR US-6752133-\$.DID. OR US-6062027-\$.DID. OR US-7073491-\$.DID. OR US-6085732-\$.DID. OR US-7363919-\$.DID. OR US-6123144-\$.DID. OR US-20020124565-\$.DID. OR US-6128784-\$.DID. OR US-20050235972-\$.DID. OR US-6138649-\$.DID. OR US-20060200297-\$.DID. OR US-6301888-\$.DID. OR US-20070084448-\$.DID. OR US-6367256-\$.DID. OR US-20070234720-\$.DID. OR US-6467270-\$.DID. OR US-5725048-\$.DID. OR US-6470682-\$.DID. OR US-5617726-\$.DID. OR US-6484500-\$.DID. OR US-5360373-\$.DID. OR US-6484703-\$.DID. OR US-4290801-\$.DID. OR US-6598388-\$.DID. OR US-4419864-\$.DID. OR US-6598396-\$.DID. OR US-4426842-\$.DID. OR US-6681171-\$.DID. OR US-4559788-\$.DID. OR US-6701710-\$.DID. OR US-5015174-\$.DID. OR US-6827067-\$.DID. OR US-5511953-\$.DID. OR US-6920868-\$.DID. OR US-4250711-\$.DID. OR US-6964158-\$.DID. OR US-4413478-\$.DID. OR US-6978772-\$.DID. OR US-4546279-\$.DID.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/07/08 08:17
S42	42	S41 and S39	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:17
S43	129579	charg\$3 near20 (air or cooler or exhaust or egr or heat or exchang\$3 or dispos\$3)	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:19
S44	2011	S43 and S36	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:20
S45	60	S43 and S41	US-PGPUB; USPAT	ADJ	ON	2008/07/08 08:20
S46	0	("2005/0056263").URPN.	USPAT	ADJ	ON	2008/07/08 08:24
S47	38	("4134377"   "4147141"   "4234040"   "4258687"   "4267812"   "4291760"   "4436147"   "5172550"   "5203311"   "5440880"   "5607010"   "5617726"   "5669365"   "5732688"   "5740786"   "5771868"   "5785030"   "5802846"   "6003315"   "6009709"   "6062304"   "6079395"   "6085732"   "6116026"   "6138649"   "6155042"   "6161528"   "6164071"   "6301887"   "6508111").PN. OR ("6681171").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/07/08 08:27
S48	0	("EP-164280-\$.did.").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	OFF	2008/07/08 08:49

S49	0	("EP-1164280-\$.did.").PN.	US- PGPUB; USPAT; FPRS; EPO; JPO	OR	OFF	2008/07/08 08:49
S50	1	EP-1164280-\$.did.	US- PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2008/07/08 08:50
S51	23	("1617815"   "4044824"   "4134377"   "4291760"   "4986345"   "5203311"   "5295533"   "5732688"   "5832992"). PN. OR ("6161528").URPN.	US- PGPUB; USPAT; USOCR	ADJ	ON	2008/07/08 09:07
S52	558	123/540,541,542,543.ccls.	US- PGPUB; USPAT	ADJ	ON	2008/07/30 16:34
S53	2179	60/278,280,298,605.1,605.2.ccls.	US- PGPUB; USPAT	ADJ	ON	2008/07/30 16:34
S54	3291	(egr or (recirculated exhaust gas)) with cool\$3	US- PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2008/07/30 16:35
S55	1	((("200476249") or ("200321032") or ("2004353531") or ("200523902"))).PN.	US- PGPUB; USPAT; JPO	OR	OFF	2008/07/31 08:38
S56	464	(air with cooler) same (egr cooler)	US- PGPUB; USPAT	ADJ	ON	2008/08/05 16:35
S57	187	S56 and (integrated or integral or bundle)	US- PGPUB; USPAT	ADJ	ON	2008/08/05 16:35
S58	0	("2007/0289581").URPN.	USPAT	ADJ	ON	2008/08/06 08:40
S59	4	("2002/0023734").URPN.	USPAT	ADJ	ON	2008/08/06 08:48
S60	15	("1539267"   "20030015184"   "20030111211"   "20030150434"   "20040107949"   "3751917"   "3814589"   "5101892"   "5148858"   "6141961"   "6302191"   "6729122"   "6807955").PN. OR ("7264040").URPN.	US- PGPUB; USPAT; USOCR	ADJ	ON	2008/08/06 08:53
S61	2182	60/278,280,298,605.1,605.2.ccls.	US- PGPUB; USPAT	ADJ	ON	2008/08/11 11:43

S62	2433	165/103,172,175,176.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/08/11 11:43
S63	3269	123/540,541,542,563,568.12,568.11,568.14,568.15,568.19,568.21,568.22,435,676.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/08/11 11:43
S64	7507	S63 or S61 or S62	US-PGPUB; USPAT	ADJ	ON	2008/08/11 11:43
S65	7507	S64	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2008/08/11 11:43
S66	197315	((egr or "exhaust gas") or (intake or feed or air)) near2 cool\$3	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2008/08/11 12:55
S67	21766	(inlet or outlet) near2 manifold	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2008/08/11 12:56
S68	196434	bypass	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2008/08/11 12:57
S69	736	S66 and S67 and S68	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2008/08/11 12:57
S70	2182	60/278,280,298,605.1,605.2.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/08/11 12:57
S71	2433	165/103,172,175,176.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/08/11 12:57
S72	3269	123/540,541,542,563,568.12,568.11,568.14,568.15,568.19,568.21,568.22,435,676.ccls.	US-PGPUB; USPAT	ADJ	ON	2008/08/11 12:57
S73	7507	S72 or S70 or S71	US-PGPUB; USPAT	ADJ	ON	2008/08/11 12:57
S74	7507	S73	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2008/08/11 12:57

S75	127	S69 and S74	US-PGPUB; USPAT; EPO, JPO	OR	OFF	2008/08/11 12:57
S76	4	("2004/0206342").URPN.	USPAT	OR	OFF	2008/08/11 13:01
S77	24	("20020088611"   "20030150434"   "20040107949"   "20040206342"   "2468903"   "2774575"   "3187807"   "3395076"   "4294220"   "4589481"   "4660632"   "4858681"   "5174271"   "5207714"   "6044827"   "6293265"   "6427671"   "6568466"   "6672292"   "6808017").PN. OR ("7213639").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2008/08/11 13:01
S78	24	("2362694"   "3326282"   "3720259"   "3837397"   "3941188"   "3996102"   "4136736"   "4204570"   "4210202"   "4311187"   "4398595"   "4402359"   "4588027"   "4708198"   "4796695"   "4809415"   "5181560"   "5255737"   "5577555").PN. OR ("6808017").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2008/08/11 13:03
S79	20	("2065515"   "2178095"   "3447313"   "3712282"   "3775972"   "3858291"   "3881455"   "4075991"   "4191148").PN. OR ("4303052").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2008/08/11 13:15
S80	1	("6513507").PN.	USPAT; USOCR	OR	OFF	2008/08/11 13:45
S81	26	("2977940"   "3717131"   "3937196"   "4258687"   "4517951"   "4693226"   "4811697"   "5207714"   "5490488"   "5785030"   "5957116"   "5979421"   "6039033"   "6073617"   "6152115"   "6205785"   "6216458").PN. OR ("6513507").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2008/08/11 13:49
S82	1	("7121325").PN.	USPAT; USOCR	OR	OFF	2008/08/11 13:53
S83	206	egr same intake same cool\$3 same inlet same outlet same manifold	US-PGPUB; USPAT; EPO, JPO	OR	OFF	2008/08/11 13:53
S84	1	("6141961").PN.	USPAT; USOCR	OR	OFF	2008/08/11 13:56
S85	86	egr same intake same cool\$3 same ((inlet or outlet) near2 manifold)	US-PGPUB; USPAT; EPO, JPO	OR	OFF	2008/08/11 14:05
S86	13	((charge adj air) with (egr or "exhaust recirculation device")) same integrated	US-PGPUB; USPAT; EPO, JPO	OR	OFF	2008/08/11 14:08
S87	6510	(intake or egr) same cooler	US-PGPUB; USPAT; EPO, JPO	OR	OFF	2008/08/11 15:49
S88	1330	(intake and egr) same cooler	US-PGPUB; USPAT; EPO, JPO	OR	OFF	2008/08/11 15:49

S89	909	S88 and (inlet or outlet)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2008/08/11 15:49
S90	36	S89 and ((first or second) near2 (bypass or bypasses))	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2008/08/11 15:50
S91	1	("7165539").PN.	USPAT; USOCR	OR	OFF	2008/08/15 09:56
S92	1946	123/568.12,568.17,184.24,568.11,184.21,184.34,568.18.ccls.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2008/08/15 10:00
S93	59398	(inlet or outlet) same manifold	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2008/08/15 10:01
S94	729	S92 and S93	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2008/08/15 10:01
S95	156	S94 and (bypass or bypasses)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2008/08/15 10:02
S96	124	S95 and (egr or "exhaust gas recirculation")	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2008/08/15 10:04
S97	8	("20030136368"   "4134377"   "4328781"   "5309886"   "5970960"   "6311678"   "6513507").PN. OR ("7165539").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/08/15 10:04
S98	26	("2977940"   "3717131"   "3937196"   "4258687"   "4517951"   "4693226"   "4811697"   "5207714"   "5490488"   "5785030"   "5957116"   "5979421"   "6039033"   "6073617"   "6152115"   "6205785"   "6216458").PN. OR ("6513507").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/08/15 10:17
S99	14	("20050145228"   "20050199381"   "4134377"   "5732688"   "5970960"   "6116026"   "6186127"   "6237547"   "6311678"   "6360532"   "6513507"   "6647971"   "6976480"   "7108193").PN. OR ("7234453").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/08/15 10:19
S100	12	("5617726"   "5732688"   "6213105"   "6367256"   "6718956").PN. OR ("6976480").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/08/15 10:24



S101	17	("20040107949"   "20050039729"   "20050199381"   "20060207578"   "20060288694"   "20070017489"   "20070068497"   "6035640"   "6213105"   "6360532"   "6367256"   "6718956"   "6807955"   "6976480"   "6976530"   "7168419"   "7210469").PN. OR ("7363919").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/08/15 10:26
S102	40	egr same cooler same intake same (bundle or integrated or integration)	US-PGPUB; USPAT; EPO, JPO	ADJ	ON	2008/08/15 13:30
S103	6894	intake with bypass	US-PGPUB; USPAT; EPO, JPO	ADJ	ON	2008/08/15 13:55
S104	10417	intake same bypass	US-PGPUB; USPAT; EPO, JPO	ADJ	ON	2008/08/15 13:55
S105	668	intake same egr same bypass	US-PGPUB; USPAT; EPO, JPO	ADJ	ON	2008/08/15 13:56
S106	217	S105 and (intake near3 bypass)	US-PGPUB; USPAT; EPO, JPO	ADJ	ON	2008/08/15 13:56
S107	76	S106 and (egr near3 bypass)	US-PGPUB; USPAT; EPO, JPO	ADJ	ON	2008/08/15 13:56
S108	86	(tube bundle) same (egr or intake)	US-PGPUB; USPAT; EPO, JPO	ADJ	ON	2008/08/15 14:06
S109	1	("4520868").PN.	USPAT; USOCR	OR	OFF	2008/08/15 14:06
S110	5685	165/103,172,175,176,95,158,178.ccls.	US-PGPUB; USPAT; EPO, JPO	ADJ	ON	2008/08/15 14:08
S111	11	S108 and S110	US-PGPUB; USPAT; EPO, JPO	ADJ	ON	2008/08/15 14:08

8/15/2008 3:23:44 PM

C:\Documents and Settings\hnguyen34\My Documents\EAST\Workspaces\10583609\_Heat Exchange Tube Bundle for Regulating Temp of Gas Entering Engine.wsp